REMARKS

Claims 11-16 are now present in this application, with claims 1-10 being canceled and with claim 11 being rewritten in independent form. New claims 13-16 have been added. Claim 11 is now the sole remaining independent claim.

PRIOR ART REJECTIONS RENDERED MOOT

The Examiner has rejected claim 6 under 35 U.S.C. § 112, second paragraph, on two separate occasions. Applicants note that this has been rendered moot by the cancellation of claim 6. Further, when incorporating portions of claim 6 into claim 11, the Examiner's comments have been recognized such that claim 11, in its current form, is in strict compliance with 35 U.S.C. § 112, second paragraph. Accordingly, withdrawal of the Examiner's rejections under 35 U.S.C. § 112 is respectfully requested.

The Examiner has rejected claims 1-3 under 35 U.S.C. § 102 as being anticipated by Seki et al.; the Examiner has rejected claims 4, 5 and 7-10 under 35 U.S.C. § 103 as being unpatentable over Kawashima et al. in view of Seki et al. and further in view of Shimizu. These rejections have also been rendered moot in view of the cancellation of claims 1-10 in connection with the present application.

INDEPENDENT CLAIM 11

The sole remaining rejection in connection with the present application is that of claim 6, 11 and 12 under 35 U.S.C. § 103 as being unpatentable over Kawashima et al. in view of Seki et al., and further in view of Shimizu. This rejection is inapplicable to independent claim 11, is further inapplicable to remaining claims 12-16, and is respectfully traversed for at least the following reasons.

Initially, Applicants note that claim 11 has been rewritten in independent form, incorporating the subject matter of claim 6, slightly clarified in order to clarify the distinction of Applicants' invention over the prior art of record. As discussed on page 7, lines 11-26 of the present application for example, Applicants have discovered that when light reflected from an optical system, such as a DLP projector is reflected by a reflective mirror and is irradiated on a sealing portion, a temperature focus region is formed in the sealing portion, in which a temperature is maximum. The discovery of this problem then resulted in the discovery of Applicants' solution, wherein a connection portion in the sealing portion, where the external lead and metal foil is connected, is provided in a position outside the temperature focus region, thereby suppressing a temperature increase in the connection portion. As such, an image display apparatus is provided with improved reliability that is achieved by suppressing the temperature increase in the connection portion in the sealing portion.

The discovery of a problem can establish patentability of an invention. As stated by the CCPA, the predecessor to the Court of Appeals for the Federal Circuit, in the case of *In re Spnnoble*, 56 CCPA 823, 232-33, 405 F.2d 578, 585, 160 USPQ 237, 243 (1969):

> It should not be necessary for the Court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103. *In re Antonson*, 47 CCPA 740, 272 F.2d 948, 124 USPQ 132; *In re Linnert*, 50 CCPA 753, 309 F.2d 498, 135 USPQ 307. The Court must be ever alert not to read obviousness into an invention on the basis of Applicants' own statements, we must view the prior art without reading into the art Applicants' teachings. *In re Murry,* 46 CCPA 905, 268 F.2d 226, 122 USPQ 364; *In re Sporck*, 49 CCPA 1039, 301 F.2d 686, 133 USPQ 360. The issue, then, is whether the teachings of the prior art, would, in and of themselves, and without the benefits of Applicants' disclosure, make the invention as a whole obvious. *In re Leonor*, 55 CCPA 1198, 395 F.2d 801, 158 USPQ 20 *(emphasis added).*

In the presently pending claim 11, Applicants "subject matter as a whole" as set forth in claim 11, for example, includes both their recognition of their problem and their solution. Independent claim 11 states that the one sealing portion includes a temperature focus region which a temperature is a maximum and which occurs because of light incident to the reflecting mirror from the optical system disposed forward in the emission direction and irradiating the sealing portion, as well as a connection portion in the one sealing portion, where the external lead and the metal foil are connected, being provided in the position outside the temperature focus region, thereby suppressing a temperature increase in the connection portion. All of these factors help to make up the "claim as a whole" and must be considered in determining obviousness of the invention under 35 U.S.C. § 103.

Applicants respectfully submit that the alleged combination of references fail to meet the aforementioned limitations of claim 11, taken either singularly or in combination, even assuming *arguendo* that they could be combined. First, on page 6, lines 18-21 of the outstanding Office Action, the Examiner asserts that Seki et al. teaches that the sealing portions are extremely lengthened so as to locate molybdenum foils at the ends of the sealing portions away from the light emitting portion. This is allegedly done to prevent the foil from being oxidized. According to Seki et al., in order to avoid radiation heat from the light emitting portion, the sealing portion is located away from the light emitting portion.

The Examiner acknowledges that the Kawashima et al. reference does not disclose that one of the external leads and metal foils are connected in a position outside the temperature focus region, but instead relies on the teachings of Seki et al. as mentioned before. However, if the cited reference to Kawashima et al. were to be combined with Seki et al., even assuming *arguendo* that there was some motivation to combine the two references which Applicants do not

admit, the connection portion will still be heated and a temperature increase in the connection portion will not be suppressed, as the temperature focus region is provided in a location where the sealing portion is located away from the light emitting portion. Hence, the alleged combination of Kawashima et al. and Seki et al. fails to recognize Applicants' problem, and also fails to disclose suppressing a temperature increase in the "connection portion" as claimed in amended claim 11 of the present application. As such, the alleged combination of references fails to teach or suggest "the invention as a whole" as set forth in independent claim 11 of the present application. In addition, Applicants note that even assuming *arguendo* that Shimizu could be combined with either one or both of Kawashima et al. and Seki et al. which Applicants do not admit, Shimizu would also fail to make up for at least the previously mentioned deficiencies of Kawashima et al. and Seki et al. with regard to independent claim 11.

Accordingly, in view of the above amendments and remarks, Applicants respectfully submit that independent claim 11 is allowable over the alleged combination of Kawashima et al., Seki et al. and Shimizu, even assuming *arguendo* that they could be combined. Therefore, Applicants respectfully request withdrawal of the Examiner's outstanding rejection and allowance of independent claim 11. Further, with regard to dependent claims 12-16, each of these claims are allowable over the prior art of record based at least upon their dependency upon allowable claim 11, and further based on additional limitations present therein. Accordingly, withdrawal of the Examiner's rejection is respectfully requested.

CONCLUSION

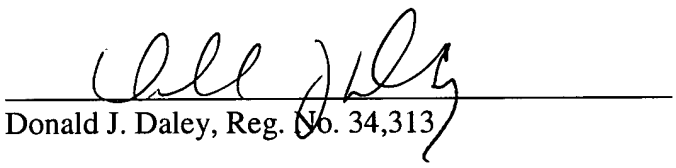
Accordingly, in view of the above amendments and remarks, reconsideration of all outstanding objections and rejections and allowance of each of claims 11-16 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley, Reg. No. 34,313 at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By 
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MARKED UP VERSION OF CLAIM CHANGES

11. (Rewritten into independent form) An image display apparatus comprising [the] a lamp unit [of claim 6,] including a discharge lamp and a reflecting mirror for reflecting light emitted from the discharge lamp, and an optical system using the lamp unit as a light source,

the discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of metal foils includes an external lead on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes,

one of the pair of sealing portions is disposed on an emission direction side in the reflecting mirror,

the one sealing portion disposed on the emission direction side includes a temperature focus region in which a temperature is a maximum and which occurs because of light incident to the reflecting mirror from the optical system disposed forward in the emission direction and irradiating the sealing portion, and,

a connection portion in the one sealing portion, where the external lead and the external lead and the metal foil are connected, is provided in a position outside the temperature focus region, thereby suppressing a temperature increase in the connection portion.